



FRAV2002-0013P.txt
SEQUENCE LISTING

<110> Bamas-Jacques, Nathalie
Thibaut, Denis
Famechon, Alain

<120> Novel variants of the PapM polypeptide of bacteria of the
Streptomyces genus

<130> FRAV2002/0013USNP

<140> US 10/603,282

<141> 2003-06-25

<150> FR0208057

<151> 2002-06-28

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<170> PatentIn Ver. 2.1

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<212> DNA

<213> Streptomyces pristinaespiralis

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Val Thr Ala Ala Ala Pro Thr Leu Ala Gln
1 5 10

gcg ctg gac gag gcc acc ggg cag ctg acc ggc gcc ggg atc acc gcc 161
Ala Leu Asp Glu Ala Thr Gly Gln Leu Thr Gly Ala Gly Ile Thr Ala
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gac gcc gcc cgg gcc gac acc cgg ctg ctg gcc gcc cac gcc tgc cag 209
Asp Ala Ala Arg Ala Asp Thr Arg Leu Leu Ala Ala His Ala Cys Gln
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gtc gcc ccg ggg gac ctc gac acc tgc ctg gcc ggc ccg gtg ccg ccc 257
Val Ala Pro Gly Asp Leu Asp Thr Cys Leu Ala Gly Pro Val Pro Pro
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cgg ttc tgg cac tac gtc cgg cgc cgt ctg acc cgc gaa ccc gcc gaa 305
Arg Phe Trp His Tyr Val Arg Arg Arg Leu Thr Arg Glu Pro Ala Glu
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cgc atc gtc ggc cac gcc tac ttc atg ggc cac cgc ttc gac ctg gcc 353
Arg Ile Val Gly His Ala Tyr Phe Met Gly His Arg Phe Asp Leu Ala
75 80 85 90

ccc ggc gtc ttc gtc ccc aaa ccc gag acc gag gag atc acc cgg gac 401
Pro Gly Val Phe Val Pro Lys Pro Glu Thr Glu Glu Ile Thr Arg Asp
95 100 105

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Ala Ile Ala Arg Leu Glu Ala Leu Val Arg Arg Gly Thr Thr Ala Pro

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gcc cgc cac gta ccg gcc gcc cgc gtc ctg ggc atc gaa ctc tcc cag Ala Arg His Val Pro Ala Ala Arg Val Leu Gly Ile Glu Leu Ser Gln	140 145	150	545
gcc gcc gcc cgc gcc gcc cgc cgc aac gcc cgc ggc acc ggc gcc cgc Ala Ala Ala Arg Ala Ala Arg Arg Asn Ala Arg Gly Thr Gly Ala Arg	155 160	165	593
atc gtg cag ggc gac gcc cgc gac gcc ttc ccc gaa ctg agc ggc acc Ile Val Gln Gly Asp Ala Arg Asp Ala Phe Pro Glu Leu Ser Gly Thr	175	180	641
gtc gac ctc gtc gtc acc aac ccg ccc tac atc ccc atc gga ctg cgc Val Asp Leu Val Val Thr Asn Pro Pro Tyr Ile Pro Ile Gly Leu Arg	190	195	689
acc tcc gca ccc gaa gtg ctc gag cac gac ccg ccg ctg gcc ctg tgg Thr Ser Ala Pro Glu Val Leu Glu His Asp Pro Pro Leu Ala Leu Trp	205 210	215	737
gcc ggg gag gag ggc ctc ggc atg atc cgc gcc atg gaa cgc acc gcg Ala Gly Glu Glu Gly Leu Gly Met Ile Arg Ala Met Glu Arg Thr Ala	220 225	230	785
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tac caa ctc gcc tcc gtg ccc gcc ctg ttc cgc gca acc ggc cgc tgg Tyr Gln Leu Ala Ser Val Pro Ala Leu Phe Arg Ala Thr Gly Arg Trp	255	260	881
agc cac gcc tcg tcc cgt ccc acc tgc aac gac ggc tgc ctg acc gcc Ser His Ala Ser Ser Arg Pro Thr Cys Asn Asp Gly Cys Leu Thr Ala	270	275	929
gta cgc aac cac acc tgc gca ccg ccc gcc tga cacggcgtca cggcacggcc Val Arg Asn His Thr Cys Ala Pro Pro Ala	285 290		982
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Arg₆₅ Arg Arg Leu Thr Arg₇₀ Glu Pro Ala Glu Arg₇₅ Ile Val Gly His Ala₈₀
Tyr Phe Met Gly His₈₅ Arg Phe Asp Leu Ala₉₀ Pro Gly Val Phe Val₉₅ Pro
Lys Pro Glu Thr₁₀₀ Glu Glu Ile Thr Arg₁₀₅ Asp Ala Ile Ala Arg₁₁₀ Leu Glu
Ala Leu Val₁₁₅ Arg Arg Gly Thr Thr₁₂₀ Ala Pro Leu Val Val₁₂₅ Asp Leu Cys
Ala Gly₁₃₀ Pro Gly Thr Met Ala₁₃₅ Val Thr Leu Ala Arg₁₄₀ His Val Pro Ala
Ala Arg Val Leu Gly Ile₁₅₀ Glu Leu Ser Gln Ala₁₅₅ Ala Ala Arg Ala Ala₁₆₀
Arg Arg Asn Ala Arg₁₆₅ Gly Thr Gly Ala Arg₁₇₀ Ile Val Gln Gly Asp₁₇₅ Ala
Arg Asp Ala Phe₁₈₀ Pro Glu Leu Ser Gly₁₈₅ Thr Val Asp Leu Val₁₉₀ Val Thr
Asn Pro Pro₁₉₅ Tyr Ile Pro Ile Gly₂₀₀ Leu Arg Thr Ser Ala₂₀₅ Pro Glu Val
Leu Glu₂₁₀ His Asp Pro Pro Leu₂₁₅ Ala Leu Trp Ala Gly₂₂₀ Glu Glu Gly Leu
Gly Met Ile Arg Ala Met₂₃₀ Glu Arg Thr Ala Ala₂₃₅ Arg Leu Leu Ala Pro₂₄₀
Gly Gly Val Leu Leu₂₄₅ Leu Glu His Gly Ser₂₅₀ Tyr Gln Leu Ala Ser₂₅₅ Val
Pro Ala Leu Phe₂₆₀ Arg Ala Thr Gly Arg₂₆₅ Trp Ser His Ala Ser₂₇₀ Ser Arg
Pro Thr Cys₂₇₅ Asn Asp Gly Cys Leu₂₈₀ Thr Ala Val Arg Asn₂₈₅ His Thr Cys
Ala Pro Pro Ala₂₉₀